20,000 – 5-9-69

FACT SHEET

L-777

KEYS TO PROFITABLE PEANUT PRODUCTION

1. CROP ROTATION. This practice increases fertilizer efficiency, if previous crop is fertilized at optimum level, and helps control soil-borne diseases. In fields where root knot nematodes cause economic loss, rotate with crops such as pearl millet or grain sorghum.

2. PLANT PARASITIC NEMATODE CONTROL. Apply chemical nematicides in the row 2 to 3 weeks before planting in areas where nematode damage is a limiting production factor. Chlorine and bromine-containing materials may be used.

Chlorine-containing nematicides:
Vidden D, Shell DD, Telone
Bromine-containing nematicides:
Nemagon, Fumazone, BBC-12

If bromine-containing materials are used, do not feed forage crops from treated soils to dairy or slaughter animals for 2 years after row application.

Caution: . Use nematicides at recommended rates and apply as recommended. Refer to label for restrictions on use.

3. FERTILIZER. Use soil test recommendation and apply broadcast prior to spring land preparation.

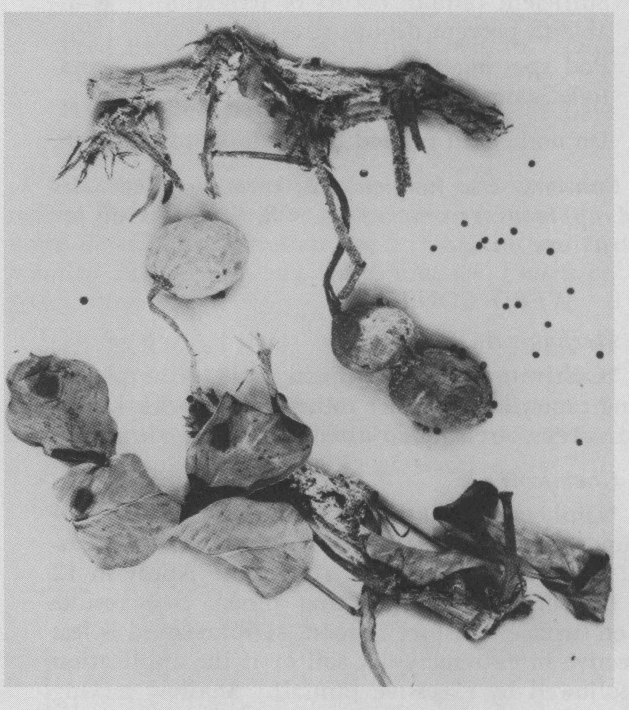
4. LAND PREPARATION. Bury surface trash with moldboard plow deep enough to avoid bringing it to the surface by later land preparation and cultivation practices.

5. SEED. Plant Starr, Dixie Spanish or Spantex variety, treated with Arasan or Ceresan-Captan. Certified seed insures varietal purity. Use medium or larger size seed obtained from a reputable seedsman. Plant a minimum of 45 pounds on nonirrigated land and a minimum of 80 pounds with ideal irrigation.

6. PLANTING. Plant carefully to prevent seed damage. For nonirrigated production plant on a slightly raised bed. Under irrigation, plant on 4-inch high beds. With chemical weed control, try planting some acreage as soon as soil temperature 3 inches deep reaches 75 degrees F., taken at 7 a.m.

7. CHEMICAL CONTROL OF SOUTHERN BLIGHT. Applying 10 pounds active PCNB per acre in the row (10 to 12-inch band) at planting time supplements cultural control methods and gives a favorable economic return when the following conditions exist:

Southern blight is a potential problem.



Symptoms of southern blights on peanuts. Note the rotting of pegs and pods as well as discoloration of stems. Mold growth on the stems and pods consists of strands of the fungal organism. The small round structures are resting bodies of the fungus (sclerotia) that overwinter in the soil.

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Cercospora leaf spot of peanuts.

Potential production exceeds 1,800 pounds per acre.

Sufficient rainfall occurs or irrigation is available to prevent drouth stress.

Pod spotting involving the root lesion nematode is not a problem.

Do not: Feed treated hay or hulls to livestock.

Caution: Use fungicides at recommended rates and apply as recommended. Refer to label for restrictions on use.

8. WEED CONTROL

Mechanical:

*Cultivate to avoid throwing soil to the plants, using rotary hoe or other rotary devices with knives and sweeps carefully adjusted.

Chemical:

*Diphenamid (Enide or Dymid). Use 3 to 4 pounds, active ingredient per acre (broadcast basis). Heavier soils require 4 pounds. Apply in 12 to 14-inch bands at planting time. Best results when surface moisture is good. Diphenamid is less effective in extremely dry soil or if the application is followed by excessive rainfall. Shallow mixing may help in dry soils.

Do not:

Plant other food crops for 6 months after last treatment.

Use cover crops for food or feed within 6 months after last treatment.

Small grain cover crops may be injured.

*Trifluralin (Treflan). Use ½-pound active ingredient per acre (broadcast basis). Apply broadcast 3 weeks or less prior to bedding or in a band at planting. *Thoroughly mix or incorporate* in soil during application and deep enough to control weeds but no deeper than planting depth if possible. Safety margin is less than with benefin on deep sands.

Do not:

Use with any varieties except Spanish types.

*Diphenamid plus DNBP (Enide or Dymid plus Premerge or Chemox PE). Use 3 to 4 pounds diphenamid plus 1½ pounds DNBP active ingredient per acre (broadcast basis). Apply in 12 to 14-inch band when seedlings crack the soil surface. May not kill all emerged Coloradograss.

Do not:

Apply DNBP later than 2 days after peanuts have emerged.

Plant other food crops for 6 months after last treatment.

Use cover crops for food or feed within 6 months after last treatment.

*Vernolate (Vernam). Use when nutsedge is the major problem and not Coloradograss or Brachiaria sp. Apply 2½ pounds active ingredient per acre (broadcast basis) prior to bedding or in bands at time of planting. Vernolate is less effective in extremely dry soil or if followed by excessive rainfall after application.

Thoroughly mix or incorporate in soil during application.

*Benefin (Balan). Use ¾ pound active ingredient per acre (broadcast basis). Apply broadcast 3 weeks or less prior to bedding or in a band at planting. Benefin has more safety margin on deep sands than trifluralin.

Thoroughly mix or incorporate in soil during application, and deep enough to control weeds but not deeper than planting depth if possible.

Caution: Use herbicides at recommended rates and apply as recommended. Refer to label for restrictions on use.

9. LEAF SPOT CONTROL. Peanut leaf spot can be prevented effectively by proper application of suggested fungicides.

Dryland recommendations:

Begin spray or dust applications when the first evidence of leaf spot occurs or when prevailing weather conditions favor leaf spot development. Continue applications at 7 to 14-day intervals throughout the season depending on weather conditions.

Irrigated recommendation:

Begin spray applications 35 to 40 days after planting and continue at 10 day intervals depending on weather conditions.

AMOUNT	SUGGESTED MATERIALS*
Spray: Use the dosage recommended on label in 25 to 40 gallons of water depending on vine size. (Use three or more nozzles per row on ground sprayers)**	**Maneb, Zinc-Maneb coordinated compounds (Dithane M-45), Polyram, Sperlox and Kocide**
Dust: Use 15 to 35 lb. of dust formulation per acre depending on vine size. Apply properly to achieve good leaf coverage.	**Maneb, Zinc-Maneb coordinated compounds (Dithane M-45), Polyram, sulfur and sulfur-copper mixtures.**

*Use Maneb, Zinc-maneb coordinated compounds or Polyram, where damage from true leaf rust is a potential problem.

**Lower water rates may be used with aerial application but take care to get good coverage of both leaf surfaces.

Do not:

Feed treated hay or hulls to livestock if materials other than sulfur or copper are used.

(Exception: When coordinated zinc and maneb materials are used, hay or hulls may be fed to livestock under certain label uses).

Caution: Use fungicides at recommended rates and apply as recommended. Refer to label for restrictions on use.

10. INSECT CONTROL. Thrip control generally does not increase yields but will produce noticeable improvements in foliar growth and appearance during early growth. Lesser corn stalk borer causes important damage and can be controlled with sprays when full-grown larvae are observed in the soil or with granular material applied in a 12 to 14-inch band mixed thoroughly in the soil just prior to pegging. Apply at least 10 gallons per acre of spray with two cone nozzles per row directed to cover the lower stems and a 6 to 7-inch band of soil on each side of the row. Repeat insecticide spray applications at 3 to 4-week intervals as needed. The following insecticides are recommended:

*DDT. Use 1½ pounds active ingredient as a spray or 2 pounds active ingredient in granular form per acre (broadcast basis).

Do not:

Feed forage or hulls to dairy animals or animals being finished for slaughter.

*Parathion. Use ½ pound active ingredient as a spray or 2 pounds active ingredient in granular form per acre (broadcast basis).

Do not:

Use within 15 days of harvest or grazing.

*Diazinon. Use ½ to 1 pound active ingredient as a spray or 2 pounds active ingredient in granular form per acre (broadcast basis).

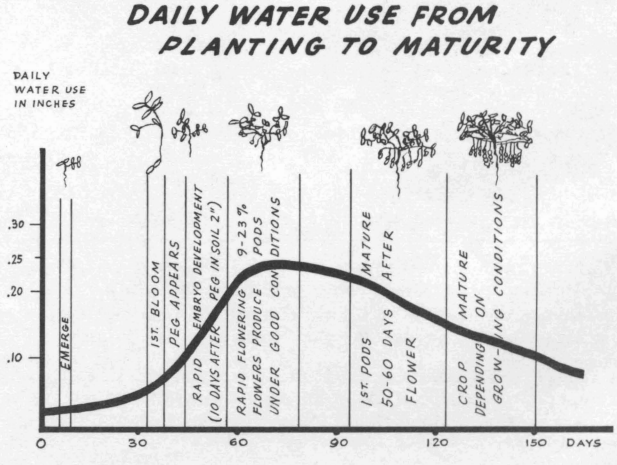
Do not:

Feed treated forage to livestock within 7 days following treatment.

Feed treated hay to livestock within 21 days following treatment.

Caution: Use insecticides only at recommended rates. Refer to label for restrictions on use. For more detailed information on insect pests, recommended insecticides and their use, see Extension publication L-704.

11. IRRIGATION. Do not allow plants to suffer from lack of moisture. After plants begin to bloom, apply water when 50 percent of the available moisture has been used from the top 2 feet of soil. Apply 2 to 3 inches of water every 7 to



10 days (longer interval and larger amount of water for heavier soils) unless rainfall supplies an equivalent amount. Use the following chart to help you estimate when the soil contains 50 percent available moisture. Be sure to examine a soil sample from several depths throughout the root zone.

FEEL CHART FOR 50 PERCENT AVAILABLE MOISTURE

Sand	Sandy Loam	Loam
Appears dry; will not form a ball with pressure.	Tends to ball under pressure, but seldom holds together.	Forms a "plastic" ball; will sometimes slick slightly with pressure.

12. HARVESTING AND CURING: Prompt curing reduces the chance of mold damage. Harvest when most of the kernels are mature.

Adjust combine picking components as weather and humidity conditions change throughout the day.

Refer to combine operator's manual for recommended picker clearances and cylinder speeds.

FIELD CURING: Combine when kernel moisture is less than 15 percent.

ARTIFICIAL CURING: Combine when kernel moisture is less than 30 percent, preferably less than 20 percent.

13. ECONOMICS OF PRODUCTION. Increased efficiency in peanut production is possible through rapid adoption of improved production practices developed by research and result demonstrations. Decisions to adopt improved production production practices are made with the use of an economic analysis of added costs versus added returns resulting from the change in practices. All practices used are important to efficient production. Some practices, however, have more effect on costs and income than others. These should receive more attention and consideration in the production process. Adequate records and accounts are necessary to determine the profitability of peanut production or of any practice used.

ESTIMATED YIELD, PRICE, INCOME, PRODUCTION COSTS, HARVESTING COSTS AND INCOME OVER SPECIFIED COSTS FOR IRRIGATED AND DRYLAND PEANUT PRODUCTION

	IRRIGATED			DRYLAND		
Yield—Pounds per acre	3,000			1,200		
Price—Cents per pound	11.8			11.8		
Income—Per acre			$354.00			$141.60
Production costs[1,2]						
Peanut seed	$24.00			$15.00		
Cover crop seed	2.50			2.50		
Fertilizer:						
cover crop	9.60			7.40		
peanuts	4.60			4.60		
Soil fungicide	14.00					
Herbicide	4.25			4.25		
Insecticide	6.00			[3]		
Foliage fungicide	9.00			4.50		
Tractor & equipment	8.95			5.30		
Irrigation costs	30.00					
Labor	27.50			7.50		
Interest on operating capital	5.62			2.04		
Total specified harvesting costs:		$146.02			$53.09	
Harvesting costs:						
Tractor & equipment	3.85			3.05		
Labor	3.35			2.40		
Combining (custom)	30.00			12.00		
Hauling (custom)	6.00			2.40		
Drying (custom)	12.00			4.80		
Total specified production costs:		$55.20			$24.65	
Total specified costs:			$201.22			$ 77.74
Income over specified costs:			$152.78			$ 63.86

[1]Costs do not include unallocated overhead costs, such as interest on farm real estate and machinery, depreciation on farm buildings and machinery, pickup expense, insurance and taxes.

[2]A nematicide may be necessary, but only when nematodes are a limiting production factor. Soil fungicides also may be used in areas where rainfall is adequate and moisture is not a limiting factor.

[3]Insect control may be necessary on peanuts produced under dryland situations.

Cooperative Extension Work in Agriculture and Home Economics, Texas A&M University and the United States Department of Agriculture cooperating. Distributed in futherance of the Acts of Congress of May 8, 1914, as amended, and June 30, 1914.
20M—2-69